Overall, the benefits of hormonal contraception far outweigh the risks.

## Acne and New Regimens

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[*Rev Obstet Gynecol.* 2009;2(1):67]



### Treatment of Acne Using a 3-Milligram Drospirenone/20-Microgram Ethinyl Estradiol Oral Contraceptive Administered in a 24/4 Regimen: A Randomized Controlled Trial

**Maloney JM, Dietze P Jr, Watson D, et al.**

*Obstet Gynecol.* 2008;112:773-781.

Androgen overproduction is a contributory factor for acne in women. It leads to excess keratinization of hair follicles and increased sebum production that are part of the pathogenesis of the disorder. OCs can offer an alternative hormonal environment with the estradiol component inducing the synthesis of sex hormone–binding globulins, an effect that seems not to be offset by the new progestins.

Specifically, drospirenone is a new progesterone with antimineralocorticoid plus antiandrogenic properties similar to spironolactone, and has been shown to offer relief from emotional and physical symptoms in premenstrual dysphoric disorder. A preparation of 3 mg of drospirenone with 20 µg of ethinyl estradiol given on a 24 days on/4 days off cycle has proved effective in symptom relief and cycle regulation. Maloney and colleagues report on its efficacy in managing moderate acne vulgaris. The researchers conducted a placebo-controlled trial over 6 months and found significant improvements in skin condition in those taking the active pills compared with placebo.

One third of patients improved on the inert pills, but 50% improved on the drospirenone/estradiol combination with a 3-fold increased likelihood of their skin being assessed as "clear or nearly clear" on the hormonal regimen. Those on OCs had a slight decrease in body weight, whereas those on the placebo had a modest increase.

# Obstetrics

## Why Doesn't a Mother Reject Her Fetus?

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### Immune Activation Early in Pregnancy: Trouble Down the Road?

**Silver RM.**

*Am J Obstet Gynecol.* 2008;199:327-328.

### Complement Activation Fragment Bb in Early Pregnancy and Spontaneous Preterm Birth

**Lynch AM, Gibbs RS, Murphy JR, et al.**

*Am J Obstet Gynecol.* 2008;199:354.e1-354.e8.

It is a wonder of pregnancy that the fetus is not rejected by the mother's immune system. A fetus must have some favored status that allows maternal tolerance, but the exact modifications of her immune responses have so far defied definition. It is clear that when the tolerance process goes awry, a spectrum of disorders results, such as miscarriage, fetal demise, preeclampsia, and preterm labor. It is postulated that deficient tolerance in early pregnancy leads to adverse outcomes months later.

The activation of the immune response or its suppression is being unraveled by the exploration of various pathways, many of which involve mediators of inflammatory mechanisms. One that is yielding intriguing results is the complement activation mechanism. Silver indicates that complement activation has been implicated in a number of autoimmune processes including lupus, rheumatoid arthritis, asthma, and various renal disorders.

In pregnancy, complement activation seems to have a key role in fetal loss associated with antiphospholipid syndrome. Complement activation or inhibition may be crucial in the treatment of the syndrome or in unexplained recurrent pregnancy losses.

Research by Lynch and colleagues now suggests that complement activation (or failure of its suppression) in early gestation leads to a greater risk of preterm labor